SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:

Michael J. Heller

Eugene Tu Glen A. Evans

Ronald G. Sosnowski

(ii) TITLE OF INVENTION: SELF-ADDRESSABLE

SELF-ASSEMBLING

MICROELECTRONIC SYSTEMS AND

DEVICES FOR

MOLECULAR BIOLOGICAL ANALYSIS

AND

DIAGNOSTICS

(iii) NUMBER OF SEQUENCES:

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE:

Lyon & Lyon

(B) STREET:

633 West Fifth Street Los Angeles

(C) CITY:

California

(D) STATE:

USA

(E) COUNTRY:

(F) ZIP:

90071

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE:

3.5" Diskette, 1.44 Mb

storage

(B) COMPUTER:

IBM Compatible

(C) OPERATING SYSTEM:

IBM P.C. DOS (Version

5.0)

(D) SOFTWARE:

WordPerfect (Version

5.1)

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER:

08/271,882

(B) FILING DATE:

July 7, 1994

(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

08/146,504

(A) APPLICATION NUMBER:

November 1, 1993

(B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME:

Murphy, David B.

(B) REGISTRATION NUMBER:

31,125

(C) REFERENCE/DOCKET NUMBER: 207/263			
(ix) TELECOMMUNICATION INFORMATION:			
(A) TELEPHONE: (213) 489- (B) TELEFAX: (213) 955- (C) TELEX: 67-3510			
(2) INFORMATION FOR SEQ ID NO: 1:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE: acid	24 nucleic		
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear		
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 1:			
GCT AGC CCC TGC TCA TGA GTC TCU	24		
(2) INFORMATION FOR SEQ ID NO: 2:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE: acid	24 nucleic		
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear		
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 2:			
AAA AAA AAA AAA AAA AAU	24		
(2) INFORMATION FOR SEQ ID NO: 3:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE: acid	34 nucleic		
<pre>(C) STRANDEDNESS: (D) TOPOLOGY:</pre>	single linear		
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 3:			
CTA CGT GGA CCT GGA GAG GAA GGA GAC TGC CTG U	34		

(2) INFORMATION	FOR SEQ ID NO: 4:	
(i)	SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: (B) TYPE:	20 nucleic
acid	<pre>(C) STRANDEDNESS: (D) TOPOLOGY:</pre>	single linear
(ii)	SEQUENCE DESCRIPTION: SEQ ID NO: 4:	
GAG TTC AGC AAA	TTT GGA GU	20
(2) INFORMATION	FOR SEQ ID NO: 5:	
(i)	SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: (B) TYPE:	20 nucleic
acid	(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii)	SEQUENCE DESCRIPTION: SEQ ID NO: 5:	
CGT AGA ACT CCT	CAT CTC CU	20
	N FOR SEQ ID NO: 6:	
(i)	SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: (B) TYPE:	18 nucleic
acid	<pre>(C) STRANDEDNESS: (D) TOPOLOGY:</pre>	single linear
(ii)	SEQUENCE DESCRIPTION: SEQ ID NO: 6:	
GTC TCC TTC CT	C TCC AGU	18
•	N FOR SEQ ID NO: 7:	
(i)	SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: (B) TYPE:	20 nucleic
acid	<pre>(C) STRANDEDNESS: (D) TOPOLOGY:</pre>	single linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	7:	20	
(2) INFORMATION FOR SEQ ID NO: 8:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE:		18 nucleic	
(C) STRANDEDNESS: (D) TOPOLOGY:		single linear	
(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	8:		
CTG GAG AAG GAG ACU		18	
(2) INFORMATION FOR SEQ ID NO: 9:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE:		22 nucleic	
(C) STRANDEDNESS: (D) TOPOLOGY:		single linear	
(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	9:		
TTC CAC AGA CTT AGA TTT GAC U		22	
(2) INFORMATION FOR SEQ ID NO: 10:			
(i) SEQUENCE CHARACTERISTICS:			
(A) LENGTH: (B) TYPE:		20 nucleic	
(C) STRANDEDNESS: (D) TOPOLOGY:		single linear	
(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	10:		
TTC CGC AGA TTT AGA AGA TU 20			

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUE	NCE CHARACTERISTICS:			
·) LENGTH:) TYPE:	20 nucleic		
(C) STRANDEDNESS:) TOPOLOGY:	single linear		
(ii) SEQUE	NCE DESCRIPTION: SEQ ID NO: 11:			
TGT TTG CCT GTT CTC	AGA CU	20		
(2) INFORMATION FOR	SEQ ID NO: 12:			
(i) SEQUE	NCE CHARACTERISTICS:			
•) LENGTH:) TYPE:	20 nucleic		
(C) STRANDEDNESS:) TOPOLOGY:	single linear		
(ii) SEQUE	NCE DESCRIPTION: SEQ ID NO: 12:			
CAT CGC TGT GAC AAA ACA TU 20				
(2) INFORMATION FOR	SEQ ID NO: 13:			
(i) SEQUE	(i) SEQUENCE CHARACTERISTICS:			
•) LENGTH:) TYPE:	20 nucleic		
(C	STRANDEDNESS: TOPOLOGY:	single linear		
(ii) SEQUE	NCE DESCRIPTION: SEQ ID NO: 13:			
TGC GAG CTG CAG TCA GAC AT 20				
(2) INFORMATION FOR	SEQ ID NO: 14:			
(i) SEQUENCE CHARACTERISTICS:				
(A) (B)	LENGTH: TYPE:	18 nucleic		
	STRANDEDNESS: TOPOLOGY:	single linear		

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 14:	
GAG AGA CTC ATG AGC AGG	18
(2) INFORMATION FOR SEQ ID NO: 15:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE: acid	18 nucleic
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 15:	
CCT GCT CAT GAG TCT CTC	18
(2) INFORMATION FOR SEQ ID NO: 16:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE: acid	19 nucleic
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 16:	
TTT TTT TTT TTT TTT T	19
(2) INFORMATION FOR SEQ ID NO: 17:	
(2) INFORMATION FOR SEQ ID NO: 17: (i) SEQUENCE CHARACTERISTICS:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE:	33 nucleic
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: acid (C) STRANDEDNESS:	nucleic single
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: acid (C) STRANDEDNESS: (D) TOPOLOGY:	nucleic single

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 18: CTC CAA ATT TGC TGA ACT C 19 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 19: GGA GAT GAG GAG TTC TAC G 19 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 17. (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 20: CTG GAG AGG AAG GAG AC 17 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	21:
(2) INFORMATION FOR SEQ ID NO: 22:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE: acid	17 nucleic
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO:	22:
GTC TCC TTC TCC AG	17
(2) INFORMATION FOR SEQ ID NO: 23:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE:	21 nucleic
acid (a) CERANDEDNESS.	
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
	linear
(D) TOPOLOGY:	linear
(D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO:	linear
(D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: GTC AAA TCT AAG TCT GTG GAA	linear
(D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: GTC AAA TCT AAG TCT GTG GAA (2) INFORMATION FOR SEQ ID NO: 24: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE:	linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: GTC AAA TCT AAG TCT GTG GAA (2) INFORMATION FOR SEQ ID NO: 24: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH:	linear 23: 21 .
(D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: GTC AAA TCT AAG TCT GTG GAA (2) INFORMATION FOR SEQ ID NO: 24: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: acid (C) STRANDEDNESS:	linear 23: 21 . 19 nucleic single linear
(D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: GTC AAA TCT AAG TCT GTG GAA (2) INFORMATION FOR SEQ ID NO: 24: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: acid (C) STRANDEDNESS: (D) TOPOLOGY:	linear 23: 21 . 19 nucleic single linear

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 25: GTC TGA GAA CAG GCA AAC A 19 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 26: ATG TTT TGT CAC AGC GAT G 19 (2) INFORMATION FOR SEQ ID NO: 27: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 30 (B) TYPE: nucleic acid (C) STRANDEDNESS: single linear (D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 27: GGT GGT GGG CGC CGG CGG TGT GGG CAA GAU 30 (2) INFORMATION FOR SEQ ID NO: 28: (i) SEQUENCE CHARACTERISTICS: 30 (A) LENGTH: (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

GGT GGT GGG CGC CGT CGG TGT GGG CAA GAU (2) INFORMATION FOR SEQ ID NO: 29: (i) SEQUENCE CHARACTERISTICS: 15 (A) LENGTH: (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 29: 15 CC GCG GCC GCC ACA C (2) INFORMATION FOR SEQ ID NO: 30: (i) SEQUENCE CHARACTERISTICS: 15 (A) LENGTH: nucleic . (B) TYPE: acid (C) STRANDEDNESS: single linear (D) TOPOLOGY: (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 30: CC GCG GCA GCC ACA C 15 (2) INFORMATION FOR SEQ ID NO: 31: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 15 nucleic (B) TYPE: acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 31: CC GTG GCA GCC ACA C 15 (2) INFORMATION FOR SEQ ID NO:

(i) SEQUENCE CHARACTERISTICS:

	(B)	LENGTH: TYPE:	30 nucleic
		STRANDEDNESS: TOPOLOGY:	single linear
	(ii) SEQUENCI	E DESCRIPTION: SEQ ID NO: 32:	
	GGT GGT GGG CGC CGG CGC	G TGT GGG CAA GAU	30
	(2) INFORMATION FOR SEC	Q ID NO: 33:	
	(i) SEQUENCE	E CHARACTERISTICS:	
	• •	LENGTH: 「YPE:	29 nucleic
	(C) S	STRANDEDNESS: COPOLOGY:	single linear
		E DESCRIPTION: SEQ ID NO: 33:	
	GGT GGT GGG CGC CGG CGG	F TGT GGG CAA GA	29
	(2) INFORMATION FOR SEQ	Q ID NO: 34:	
	(i) SEQUENCE	CHARACTERISTICS:	
	(A) LENGTH: (B) TYPE:	22 nucleic	
		TRANDEDNESS: OPOLOGY:	single linear
	(ii) SEQUENCE	DESCRIPTION: SEQ ID NO: 34:	
	TGC CCA CAC CGC CGG CGC	CCA C	22
	(2) INFORMATION FOR SEQ) ID NO: 35:	
(i) SEQUENCE CHARACTERISTICS:			
	(A) L (B) T	ENGTH: 'YPE:	22 nucleic
	(C) S	TRANDEDNESS: OPOLOGY:	single linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

31

(2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 22 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 36: TGC CCA CAC CGA CGG TGC CCA C 22 (2) INFORMATION FOR SEQ ID NO: 37: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 37: 7 ACA CCG C (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: nucleic acid single (C) STRANDEDNESS: (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 38: ACA ACG C 7 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 39: CCA GTC ACG ACG TTG TAA AAC GAC GGC CAG U 31 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 31 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 40: GTA ATC ATG GTC ATA GCT GTT TCC TGT GTG U 31 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 40 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 41: GCA TGC CTG CAG GTC GAC TCT AGA GGA TCC CCG GGT ACC G 40 (2) INFORMATION FOR SEQ ID NO: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 40 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: / linear (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

TGC CAA GCT TGG CTG CAG GTC GAC GGA TCC CCG GGA ATT C 40

(2) INFORMATION FOR SEQ ID NO: 43:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE:	24 nucleic
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 43:	
AAA TTG TTA TCC GCT CAC AAT TGC	24
(2) INFORMATION FOR SEQ ID NO: 44:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: (B) TYPE:	24 nucleic
(C) STRANDEDNESS: (D) TOPOLOGY:	single linear
(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 44:	
ACA CAA CAT ACG AGC CGG AAG CAT	24